BRUHAT BANGALORE MAHANAGARA PALIKE

Improvments to roads, drains and other developmental works in ward no- 02 & 03 under road development head in Chief Minister Nava Nagarothan grants of yelahanka division. (Package -01)

Combined Abstract

List of Roads Under the (Yelahanka 2018-19)

G.O. N	Name of Work
1507	Improvements roads and drain at yelahanka new town 5th phase main and cross roads in chowdeshwari ward no -02, Yelahanka Sub Division
1508	Providing Asphalting and improvements to drains at nagenahalli and Surya vamshi layout and ISRO layout, and Nagenahalli layout main and cross roads main and cross roads and surrounding areas in chowdeshwari ward no -02, Yelahanka Sub Division
1509	Improvements to roads and drains at Puttenahalli vinayaka layout main and cross roads and Susheelamma layout, ISAQ layout, main and cross roads and surrounding areas in chowdeshwari ward no -02, Yelahanka Sub Division
1510	Improvements to roads and drains at Kenchenahalli balaji layout main and cross roads and Prakruthi layout main and cross roads and surrounding areas in chowdeshwari ward no -02, Yelahanka Sub Division
1511	Improvements to roads and drains at Synika viahara badavane balance main and cross roads, Suryavamshi layout balance main and cross roads and surrounding areas in chowdeshwari ward no -02 , Yelahanka Sub Division
1519	Improvements to roads and drains at SFS 208 and surrounding areas in ward no:03 Yelahanka Satellite Town sub Division

Item No	Description of work	Unit	Quantity as per Estimation	Rate in Rs.		Amount in Rs.
				In Figures.	In Words	
1	KSRRB 200-8. Clearing and grubbing road land including uprooting rank vegetation, grass, brush, shrubs, saplings and trees of girth upto 300mm, by manual means, in area of light jungle, removal of stumps, disposal of unserviceable materials, stacking of serviceable materials labour charges complete as per specifications. MORTH / Chapter 2	Sqm	7,900.50	10.60	Rupees Ten And Paise Sixty Only	83745.30
2	Removing and resetting of footpath slab	sqm	4,691.40	208.82	Rupees Two Hundred Eight And Paise Eighty Two Only	979658.15
3	Removing and resetting of kerb stones	M	3,424.00	104.94	Rupees One Hundred Four And Paise Ninety Four Only	359314.56
4	KSRRB M200-12.1. Dismantling of existing structures like culverts, bridges, retaining walls and other structure comprising of masonry, cement concrete,-wood work, steel work, including T&P and scaffolding wherever necessary, sorting the dismantled material, disposal of unserviceable material and stacking the serviceable material with all lifts complete as per specifications. i) Lime /Cement Concrete. I. By Manual Means: A. Lime Concrete, cement concrete grade M-10 and below. MORTH Specification No. 202	Cum	123.84	481.24	Rupees Four Hundred Eighty One And Paise Twenty Four Only	59596.76
5	Earthwork excavation by manual means for roads, drains & similar works in ordinary soil excavated surface levelled and sides neatly dressed, the disposed earth to be levelled neatly after breaking of clods complete as per specificationsand as per directoins of the Engineer in charge of work.	Cum	6,206.87	211.79	Rupees Two Hundred Eleven And Paise Seventy Nine Only	1314539.52
6	KSRB 4-1.2 : Providing and laying in position plain cement concrete of Mix 1:3:6 with OPC @ 220kgs, with 40mm and down size graded granite metal coarse aggregates @0.892cum and fine aggregates @ 0.465cum machine mixed, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation including cost of all materials, labour, HOM curing complete as per specifications. Specification No. KBS 4.1,4.2	Cum	984.41	5,505.64	Rupees Five Thousand Five Hundred Five And Paise Sixty Four Only	5419807.07
7	Providing TMT Bars Fe 500 steel reinforcement for R.C.C. work including straightening, cutting, bending, hooking, placing in position, lapping and/or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per disign (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM complete as per specification and as per directoins of the Engineer in charge of work.	T	134.05	72,326.98	Rupees Seventy Two Thousand Three Hundred Twenty Six And Paise Ninety Eight Only	9695431.67
8	Providing and laying plain/reinforced cement concrete for side drains Wall & bottom thickness 15cm using M20 nominal mix concrete with OPC at 300 kgs. with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at 0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per MORTH specification No. 1500,1700, 2200. including cost of materials, labour, HOM complete as per specifications.	Cum	2,175.48	7,070.20	Rupees Seven Thousand Seventy And Paise Twenty Only	15381078.70
9	Providing and laying in position plain cement concrete of mix 1:2:4 with cement @ 240kgs, with 20mm and down size graded granite metal coarse aggregates @ 0.69 cum and fine aggregtes @ 0.459cum, machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, for coping. Including cost of all materials, labour, HOM, curing complete as per specifications.	Cum	80.00	5,599.98	Rupees Five Thousand Five Hundred Ninety Nine And Paise Ninety Eight Only	447998.40

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Item No	Description of work		Quantity as	Rate in Rs.		
10	Supplying and fixing precast reinforced concrete slab 10 cm thick of mix M20 using 20mm and downsize graded granite metal using reinforcement 10mm dia steel at 150mm C/c both ways cost, transportation, hire charges of machinery, machine cutting the vertical face to get plain even surface etc., complete with all leads and lift conveyance charges, labour charges inclusive of cost of cost of all materials(data Rate enclosed)	sqm	6,036.30	2,337.00	Rupees Two Thousand Three Hundred Thirty Seven Only	14106833.10
11	Providing and laying Pre Cast Drain Cover slabs of 250mm thick of mix M20 using graded granite jelly 20mm down size with steel reinforcement, including from work, lift charges, curing and concrete finished surfaces on both side etc. complete and as per drawing and direction of Engineer-in-charge of work (data Rate enclosed)	Sqm	214.65	5,418.00	Rupees Five Thousand Four Hundred Eighteen Only	1162973.70
12	Providing and fixing Pre cast solid concrete kerb stones of size 450 x 200 x 400 mm made out of CC 1:2:4 and finished with CM 1:3 plastering and finishing cutting etc., complete as per specifications and as per directions of Engineer in charge of work.	Nos	7,478.00	477.00	Rupees Four Hundred Seventy Seven Only	3567006.00
13	Painting two coats after filling the surface with synthetic enamel paint in approved shades on new plastered concrete surfaces, with materials, labour complete as per specifications and as per directoins of the Engineer in charge of work.	Sqm	3,394.00	84.80	Rupees Eighty Four And Paise Eighty Only	287811.20
14	Providing and laying heavy duty cobble stones interlock pavers, using cement and course sand for manufacture of blocks of approved size, shape and colour with a minimum compressive strength of 281 kg per sqm over 50mm thick sand bed (average thickness) and compacting with plate vibrator having 3 tons compaction force thereby forcing part of sand underneath to come up in between joints, final compaction of paver surface joints into its final level, including cost of materials, labour and HOM complete as per specifications and as per directoins of the Engineer in charge of work.	sqm	375.00	1,116.18	Rupees One Thousand One Hundred Sixteen And Paise Eighteen Only	418567.50
15	KSRRB 300-50. Scarifying bituminous course 50mm to 75mm thick along with premix carpet / surface dressing by mechanical means attached with scarifier without disturbing the base and stacking the debris including cost of all labour charges, HOM complete as per specifications. MORTH I Chapter 3	Sqm	1,144.00	54.91	Rupees Fifty Four And Paise Ninety One Only	62814.75
16	Excavation for roadwork in all types of soil by mechanical means including cutting and loading to tippers, trimming bottom and side slopes, in accordance with requirements of lines, grades and cross sections, and transportation with a lead of 1.00 km and complete as per specifications and as per directoins of the Engineer in charge of work.	Cum	2,549.16	57.03	Rupees Fifty Seven And Paise Three Only	145373.50
17	Construction of granular sub-base Grading-V as Sub-base and drainage layer by providing coarse graded crushed stone aggregatesof granite/trap/basalt material, mixing by mix in place method by rotavator at OMC, spreading in uniform layers with motor grader on prepared surface and compacting with vibratory power roller to achieve the 98 % proctor density, complete as per specifications and as per directoins of the Engineer in charge of work.	Cum.	1,274.59	1,855.00	Rupees One Thousand Eight Hundred Fifty Five Only	2364364.45
18	Providing, laying, spreading and compacting cushed stone aggregates of granite / trap / basalt to wet mix macadam specifications including pre mixing the material with water at OMC in mechanical mix plant carriage of mixed materials by tipper to site, laying in uniform layers with paver in sub-base/base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per specifications and as per directoins of the engineer in charge of work.	Cum	1,699.44	2,001.28	Rupees Two Thousand One And Paise Twenty Eight Only	3401055.28
19	Compaction of original ground by mechanical means including filling in depression occuring during rolling including cost of all labour, HOM complete as per specifications and as per directoins of the Engineer in charge of work.	Sqm	8,497.20	6.36	Rupees Six And Paise Thirty Six Only	54042.19
20	Providing and applying primer coat with S.S. bitumen emulsion on prepared surface of granular base such as WMM including cleaning of road surface and spraying primer at the rate of 0.60 kg / sqm using mechanical means complete as per specifications and as per directoins of the Engineer in charge of work.	Sqm	13,863.37	33.92	Rupees Thirty Three And Paise Ninety Two Only	470245.51
21	Cleaning the existing black topped surface with brooms, soft brushes and finally dusting with old gunny bags and / or compressed air to receive bituminous treatment including cost of all materials, labour, HOM complete as per specifications and as per directoins of the Engineer in charge of work.	Sqm	35,947.30	5.30	Rupees Five And Paise Thirty Only	190520.69

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Item No	Description of work	Unit	Quantity as	Rate in Rs.		Amount
22	KSRRB M500-17. Providing and laying dense graded bituminous macadam using 120 TPH capacity Asphalt batch mix plant with sensor paver Gr-I I (50 mm to 75 mm) with 4.5 % VG-30 Bitumen crushed aggregates of specified grading; premixed with VG30 grade bituminous binder and, transporting the hot mix to work site, laying to the required grade, level and ialignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 505 of MORTH V revision	Cum	693.18	7,620.34	Rupees Seven Thousand Six Hundred Twenty And Paise Thirty Four Only	5282267.28
23	Providing and applying tack coat using 80/100 grade bitumen(VG10) on the prepared black topped surfaces at 2.5 kg per 10 sqm, heating bitumen in boiler fitted with spray set (excluding cleaning of road surface) including cost of all materials, labour, HOM complete as per specifications and as per directoins of the engineer in charge of work.	Sqm	45,073.60	12.72	Rupees Twelve And Paise Seventy Two Only	573336.19
24	Providing and laying bituminous concrete 40mm thick with hot mix plant, using 40-60 TPH capacity HMP with mechanical paver grading II (30-45mm) with 5.4 % of modified bituminous binder consisting of 4.97% of VG-30 bitumen (60/70 grade) and 0.43% of plastomeric thermoplastics (waste plastic) crushed aggregates of specified grading, premixed with bituminous binder and filler, transporting the hot mix to work site, laying with a paver finisher to the required grade, level and alignment, rolling with smooth wheeled, vibratory and tandem rollers to achieve the desired compaction in all respects complete as per specifications. Clause 507 of MORTH V revision as per IRC SP-53-2015.	Cum	1,700.35	8,699.42	Rupees Eight Thousand Six Hundred Ninety Nine And Paise Forty Two Only	14792058.80
25	Road Marking with Hot Applied Thermoplastic Compound with Reflectrising Glass Beads on Bituminous Surface/ Concrete Surface: Providing and laying of hot applied thermoplastic compound 2.5 mm thick including reflectorising glass beads at 250 gms per sqm area, thickness of 2.5 mm is exclusive of surface applied glass beads as per IRC:35 standards specified. The finished surface to be level, uniform and free from streaks and holes complete as per specifications and as per directoins of the Engineer in charge of work.	Sqm	2,378.10	454.74	Rupees Four Hundred Fifty Four And Paise Seventy Four Only	1081417.19
26	KSRRB M800-35. Supply and Installtion of Moulded Shank Raised Pavement Markers made of polycarbonate and ABS(Acrylonitrile Butadiene Styrene) moulded body and reflective panels with micro prismatic lens capable of providing total internal reflection of the light entering the lens face and shall support a load of 6000 kg tested in accordance to Specifications of Category A of MORTH Circular No RW/ NH/33023/10-97 - DO III Dt 11.06.1997. The height, width and length shall not exceed 50 mm, 100 mm and 102 mm and with minimum reflective area of 3 Sqcm on each side and the slope to the base shall be 35 degree. The strength of detachment of the integrated cylindrical shanks, (of diameter not less than 19 mm and height not less than 30 mm) from the body is to be a minimum value of 500 Kg. Fixing will be by drilling holes on the road for the shanks to go inside, without nails and using epoxy resin based adhesive as per manufacturer's recommendation and complete as directed by the engineer.	Nos	3,532.00	357.22	Rupees Three Hundred Fifty Seven And Paise Twenty Two Only	1261701.04
27	Supply and fixing of Retro Reflective Single Arrow Road Name Signboard of size 1600mm x 900mm made out of retro reflective sheeting conforming to Type XI standards of ASTM D 4956 - 09 & as per IRC 67-2012 for full back ground of blue colour & white letters and fixed over 4 mm thick Aluminium Composite Material sheet having minimum 0.5 mm thick Aluminium skin on both sides with back side painted grey colour and fixed over back support frame SS angle of 15mm x 20mm x 1.2mm, supported by 38mm OD stainless steel pipe all round in 304 grade and 2 nos of vertical posts of 50 mm OD stainless steel pipe of 202 grade firmly fixed to the ground by means of properly designed foundation of size 450mm x 450mm x 600mm in 1:1.5:3 ratio cement concrete. The background shall be blue in color with letters and border in white, the item includes earthwork excavation, cost of all materials, loading, unloading, lead, lift, transportation etc., complete, as per direction of engineer incharge of work clause 6.9 of IRC 67-2012 for Type XI retro reflective sheeting from the sheeting manufacturer & a certified copy of test reports from an independent test laboratory conforming to clause 6.7 of IRC 67-2012 including outdoor weather exposure report for the retro reflective sheeting offered shall be submitted by the contractor for technical qualification in the tender.	sqm	4.32	14,094.82	Rupees Fourteen Thousand Ninety Four And Paise Eighty Two Only	60889.62

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Improvments to roads, drains and other developmental works in ward no- 02 03 under road development head in Chief Minister Nava Nagarothan grants of yelahanka division.

Item No	Description of work		Quantity as	Rate in R		
28	Direction and Place Identification Signs with size morethan 0.9 Size Board: Providing and erecting direction and place identification retro -reflectorised sign as per IRC:67 made of high i ntensity grade sheeting vide Clause 801.3, fixed over aluminium sheeting, 2 mm thick with area not exceeding 0.9 sqm supported on a mild steel single angle iron post 75 x 75 x 6 mm , 2 Nos. firmly fixed to the ground by means of properly designed foundation with M 15 grade cement concrete 45 x 45 x 60 cm, 60 cm below ground level as per approved drawing.	Nos	23.49	7,557.80	Rupees S[redacted] Five Hundred Fifty Seven And Paise Eighty Only	177532.72

Total Constrution cost	8,32,01,980.84
GST 12%	99,84,237.70
Tender Premium 6%	49,92,118.85
Cost towards Design Report , PMC / Third Party inspection LS	20,04,000.00
Sub Total	10,01,82,337.39
Miscellaneous and rounding off	17,662.61
Total	100200000.00

Technical Sanction
Accorded For ..... Rs 10.02 Crs
Head of A/C..... Annexure-2
CER NO :..214..... Dt:..08.11.2019

SRI SAI CONSULTANTS BANGALORE

Consultant
Sri Sai Consultants

TAI CE (YNK)

Assistant Engineer
Ward No-02 & 03

Assistant Executive Engineer
Yelahanka Sub-Division

Executive Engineer
Yelahanka-Division

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